

INTERNATIONAL SEARCH REPORT

Rec'd PCTO 29 JUN 2004

International application No.

PCT/SE 02/02448

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16L 23/032

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2940779 A (AMERIGO JOSEPH DEL BUONO), 14 June 1960 (14.06.60)	1-9,11-13
Y	---	10
X	WO 9010812 A1 (ROLLSROYCE PLC), 20 Sept 1990 (20.09.90)	1-9,11-13
Y	---	10
Y	WO 9317268 A1 (STEELPRODUCTS OFFSHORE AS), 2 Sept 1993 (02.09.93)	10

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

12 March 2003

Date of mailing of the international search report

20-03-2003

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86

Authorized officer

Malin Hallmén / JA A
Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 02/02448

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4183562 A (BRUCE J. WATKINS ET AL), 15 January 1980 (15.01.80) -- -----	10

INTERNATIONAL SEARCH REPORT

Information on patent family members

30/12/02

International application No.

PCT/SE 02/02448

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
US	2940779	A	14/06/60	NONE		
WO	9010812	A1	20/09/90	DE	69001755 D,T	02/09/93
				EP	0464050 A,B	08/01/92
				GB	8905894 D	00/00/00
				JP	4505957 T	15/10/92
				US	5230540 A	27/07/93
WO	9317268	A1	02/09/93	AU	3576993 A	13/09/93
				BR	9305929 A	19/08/97
				CA	2130102 A	02/09/93
				CZ	9402001 A	18/01/95
				EP	0630456 A	28/12/94
				FI	943841 A	19/08/94
				HU	69904 A	28/09/95
				HU	9402359 D	00/00/00
				JP	7504021 T	27/04/95
				NO	177160 B,C	18/04/95
				NO	920686 A	23/08/93
				RU	2091657 C	27/09/97
				SE	9402514 D	00/00/00
US	4183562	A	15/01/80	DE	2813119 A,C	12/10/78
				FR	2385886 A,B	27/10/78
				GB	1593347 A	15/07/81
				JP	1302613 C	14/02/86
				JP	53125201 A	01/11/78
				JP	60026920 B	26/06/85